

charges were for neuropsychiatric disorders. It was impossible for such a situation not to come to the attention of command. The response is amply documented in the present volume.

Neuropsychiatry in World War II deals with the frustrations, failures, and successes of the administrative and professional personnel in negotiating the Scylla and Charybdis between organizational responsibility and respect for the individual. In a setting where necessity often dictated policy, where policy was not always consistent but quick to change, and where the decision-making apparatus was, at best, cumbersome with little congruence between expertise and power, this was no mean task. It is a credit to the inventiveness and persistence of the people involved that some 25 years later it is possible to write not only of the lessons learned, but also of the changes resulting from these lessons. Nor should the lessons be regarded as unimportant, for they include the conceptual foundations of many current psychiatric practices, particularly in the spheres of milieu therapy and community psychiatry. The book, however, is not primarily concerned with clinical issues. It is, foremost a historical account of the processes that defined policy and thereby determined the clinical workload of the psychiatrist. While there is statistical data on the prevalence and incidence of neuropsychiatric disorders, and theoretical material, particularly in reference to the issues of secondary gain and the relationship between predisposition and stress, the vast majority of the sections on psychiatry in practice discuss the elaboration of the organization of services and the recruitment and training of core personnel.

If the reader's interest is in the relationship between policy formation, organizational structure, and program development, *Neuropsychiatry in World War II* is to be recommended. The reader should be forewarned, however, that the book itself suffers from certain organizational deficits related to the multiplicity of authors and manifest by a degree of repetitiousness and redundancy.

GARY TISCHLER

INTEGRATIVE ACTIVITY OF THE BRAIN. An Interdisciplinary Approach. By Jerzy Konorski. Chicago, The University of Chicago Press, 1967. xii, 531 pp. \$15.00.

Professor Konorski's book may be considered the scientific culmination of the career of one of the most distinguished contemporary psychologists, and represents a comprehensive blending of information of Eastern and Western literature about cerebral analyzers, conditioned reflexes, and behavioral activities. Professor Konorski's previous book, *Conditioned Reflexes and Neuron Organization*, had the noble purpose of reconciling the extensive information obtained by Pavlov's School with Sherrington's principles of central nervous activity, unifying doctrinal—and often emotional—disparities in scientific thought.

The present book has the same unifying principle, enriched by a wealth of new neurophysiological data and supplemented by studies of human behavior in normal and brain damaged patients. A controversial point is whether introspection may provide information at parity with overt be-

havioral performance, and Konorski proposes that the mental experience depends on the occurrence of particular nervous processes in a similar way as overt behavior is correlated with the activity of specific cerebral structures. In Konorski's words, "In this way, the ultimate goal of brain physiology, consisting in conclusions about the mental experiences of a subject from the electrical activity of his brain, ceases to be mere fantasy and begins to be real possibility." If a psychic experience in man is related to definite evoked potentials in the brain, Konorski assumes that a similar experience may be felt by the animals when the stimulus object produces exactly the same set of electrophysiological responses in the brain. This assumption is difficult to prove—or disprove—because sensory inputs produce such a complex spatio-temporal distribution of electrical patterns that their precise recording and analysis is very difficult to achieve.

In the opinion of this reviewer, mental activity depends not only on sensory perception but also on past experience, which cannot be detected at the level of sensory inputs. Neurophysiological techniques may inform us about the *material carrier* (for example, the image of a pencil transduced into a barrage of spikes in the optic pathways) which may be similar in a man or in a cat, but the *symbolic meaning* is related to previous experience and cultural values which today are still beyond the reach of the neurophysiologist. In spite of possible disagreements in interpretation, experimentation on perceptions and neurophysiological responses in animals are essential for the investigation of psycho-physical correlations.

The first part of the book places great emphasis on classical and instrumental conditioned reflexes, the second part concentrates on physiological mechanisms of perceptions and associations based on psychological and neuropathological data collected in human patients. Altogether this is an exceptional book, lucidly written and well documented, which should have a powerful impact on modern thinking about cerebral mechanisms of behavioral and mental activities in animals and man.

JOSÉ M. R. DELGADO

NORMAL TABLE OF *XENOPUS LAEVIS*. 2nd Edition. Edited by P. D. Nieuwkoop and J. Faber. Amsterdam, North Holland Publishing Co., 1967. x, 252 pp. \$11.20.

Nieuwkoop and Faber have edited an extremely useful book for the specialist interested in problems of amphibian development. All research workers in search of an animal that is a convenient source of embryonic material should consider *Xenopus* by reading the chapters on care and feeding of adults and breeding. There are chapters on the taxonomy and ecology of the genus *Xenopus*, rearing and caring for a colony, and then chapters concerning the morphology of various stages of development. In depth, and carefully prepared descriptive studies have been carried out on the morphological alterations occurring from fertilization until metamorphosis. There are extremely useful comparative tables that show how the numerical stage designations correspond to those of other amphibians. Libraries will be interested in this volume for its extensive bibliography of amphibian development. There are over 1,000 primary citations in the comprehensive bibliography. At the